WHAT IS CLAIMED IS:

1. An image processing method comprising:

noise detection step of performing noise detection on an image;

noise removal step of removing noise from a predetermined region of the image, on the basis of the result of the noise detection;

arithmetic step of obtaining the ratio of an area targeted for noise removal to the predetermined region of the image, on the basis of the result of the noise detection; and

image generation step of generating an image indicating the ratio, on the basis of the ratio obtained in the arithmetic step.

2. An image processing method comprising:

noise detection step of performing noise detection on an image;

noise removal step of removing noise from a predetermined region of the image, on the basis of the result of the noise detection;

arithmetic step of obtaining the ratio of an area targeted for noise removal to the predetermined region of the image, from the result of the noise detection;

statistics calculation step of obtaining the statistics on the ratios obtained in the arithmetic step over a predetermined period of time;

image generation step of generating an image indicating the statistics, on the basis of the statistics obtained in the statistics calculation step; and

image composition step of superimposing the image generated in the image generation step on the image before being subjected to noise removal in the noise removal step or on the image from which noise has been removed, to generate a composite image for display.

3.   An image processing method comprising:

noise detection step of detecting the position and intensity of noise in an image;

noise removal step of removing noise from a predetermined region of the image, on the basis of the position and intensity of noise detected in the noise detection step;

arithmetic step of obtaining, for each intensity level of noise, the ratio of an area targeted for noise removal to the predetermined region of the image, on the basis of the position and intensity of noise detected in the noise detection step; and

image generation step of generating an image indicating the ratio for each intensity level of noise, on the basis of the ratio obtained in the arithmetic step.

4.   An image processing method comprising:

noise detection step of performing detection of position and

intensity of noise, on an image;

noise removal step of removing noise from a predetermined region of the image, on the basis of the position and intensity of noise detected in the noise detection step;

arithmetic step of obtaining, for each intensity level of noise, the ratio of an area targeted for noise removal to the predetermined region of the image, on the basis of the position and intensity of noise detected in the noise detection step;

statistics calculation step of obtaining, for each intensity level of noise, the statistics on the ratios obtained in the arithmetic step over a predetermined period of time;

image generation step of generating an image indicating the statistics, for each intensity level of noise, on the basis of the statistics obtained in the statistics calculation step; and

image composition step of superimposing the image generated in the image generation step on the image before being subjected to noise removal in the noise removal step or on the image from which noise has been removed, to generate a composite image for display.

5. An image processing method comprising:

noise detection step of detecting the position and intensity of noise in an image;

noise removal step of removing noise from the image, on the basis of the position and intensity of noise detected in the

noise detection step;

image generation step of generating an image indicating pixels included in an area of the image targeted for noise removal, using a predetermined color according to the intensity of noise, on the basis of the position and intensity of noise detected in the noise detection step; and

image composition step of superimposing the image generated in the image generation step on the image before being subjected to noise removal in the noise removal step or on the image from which noise has been removed, to generate a composite image for display.

6. An image processing method comprising:

noise detection step of detecting noise in an image;

noise removal step of removing noise from the image on the basis of the result of the noise detection; and

image composition step of spatially combining a part of the image before being subjected to noise removal in the noise removal step with a part of the image from which noise has been removed, to generate a composite image for display.

7. An image processing method as defined in Claim 5, wherein the intensity of the noise detected in the noise detection step is only one, and the color of the image generated in the image generation step is only one.

8. An image processing method as defined in Claim 6, wherein the image composition step comprises cutting partial images of the same region from the image before being subjected to noise removal in the noise removal step and the image from which noise has been removed, respectively, and generating an image in which the partial images are arranged vertically or horizontally.

9. An image processing method as defined in any of Claims 1 to 6 further comprising:

image decoding step of decoding an image code sequence to generate a decoded image;

said noise detection step of performing noise detection using information included in the image code sequence; and

said noise removal step of removing noise from the decoded image obtained in the image decoding step, on the basis of the result of the noise detection.

10. An image processing method as defined in any of Claims 1 to 6, wherein said noise is one of blocking artifact and ringing artifact.

11. An image processing method as defined in any of Claims 1 to 6, wherein the predetermined region to be subjected to noise removal in the noise removal step is an assembly of pixels in the

vicinity of a boundary of each block.

12.   An image processing apparatus comprising:

    noise detection means for performing noise detection on an

input image;

    noise removal means for removing noise from a predetermined

region of the input image, on the basis of the result of the

noise detection;

    arithmetic means for obtaining the ratio of an area targeted

for noise removal to the predetermined region of the input image,

on the basis of the result of the noise detection; and

    image generation means for generating an image indicating the

ratio, on the basis of the ratio obtained by the arithmetic means.

13.   An image processing apparatus comprising:

    noise detection means for performing noise detection on an

input image;

    noise removal means for removing noise from a predetermined

region of the input image, on the basis of the result of the

noise detection;

    arithmetic means for obtaining the ratio of an area targeted

for noise removal to the predetermined region of the input image,

from the result of the noise detection;

    statistics calculation means for obtaining the statistics on

the ratios obtained by the arithmetic means over a predetermined

18. An image processing apparatus as defined in Claim 16,
wherein the intensity of the noise detected by the noise
detection means is only one, and the color of the image generated
by the image generation means is only one.

19. An image processing apparatus as defined in Claim 17,
wherein the image composition means cuts partial images of the
same region from the input image and the output image from the
noise removal means, respectively, and generates an image in
which the partial images are arranged vertically or horizontally.

20. An image processing apparatus as defined in ~~any of~~ Claims 12
~~to 17~~ further comprising:

    image decoding means for decoding an image code sequence to
generate a decoded image;

    said noise detection means receiving the image code sequence,
and performing noise detection using information included in the
image code sequence; and

    said noise removal means removing noise from the decoded
image outputted from the image decoding means, on the basis of
the result of the noise detection.

21. An image processing apparatus as defined in ~~any of~~ Claims 12
~~to 17~~, wherein said noise is one of blocking artifact and ringing

artifact.

22.   An image processing apparatus as defined in ~~any of~~ Claims 12 ~~to 17~~, wherein the predetermined region to be subjected to noise removal by the noise removal means is an assembly of pixels in the vicinity of a boundary of each block.

8. An image processing method as defined in Claim 6, wherein the image composition step comprises cutting partial images of the same region from the image before being subjected to noise removal in the noise removal step and the image from which noise has been removed, respectively, and generating an image in which the partial images are arranged vertically or horizontally.

9. An image processing method as defined in any of Claims 1 to 6 further comprising:

image decoding step of decoding an image code sequence to generate a decoded image;

said noise detection step of performing noise detection using information included in the image code sequence; and

said noise removal step of removing noise from the decoded image obtained in the image decoding step, on the basis of the result of the noise detection.

10. An image processing method as defined in any of Claims 1 to 6, wherein said noise is one of blocking artifact and ringing artifact.

11. An image processing method as defined in any of Claims 1 to 6, wherein the predetermined region to be subjected to noise removal in the noise removal step is an assembly of pixels in the

vicinity of a boundary of each block.

12. An image processing apparatus comprising:

noise detection means for performing noise detection on an input image;

noise removal means for removing noise from a predetermined region of the input image, on the basis of the result of the noise detection;

arithmetic means for obtaining the ratio of an area targeted for noise removal to the predetermined region of the input image, on the basis of the result of the noise detection; and

image generation means for generating an image indicating the ratio, on the basis of the ratio obtained by the arithmetic means.

13. An image processing apparatus comprising:

noise detection means for performing noise detection on an input image;

noise removal means for removing noise from a predetermined region of the input image, on the basis of the result of the noise detection;

arithmetic means for obtaining the ratio of an area targeted for noise removal to the predetermined region of the input image, from the result of the noise detection;

statistics calculation means for obtaining the statistics on the ratios obtained by the arithmetic means over a predetermined

period of time;

image generation means for generating an image indicating the statistics, on the basis of the statistics obtained by the statistics calculation means; and

image composition means for superimposing the image generated by the image generation means on the image before being subjected to noise removal by the noise removal means or on the image from which noise has been removed, to generate a composite image for display.

14. An image processing apparatus comprising:

noise detection means for performing detection of position and intensity of noise, on an input image;

noise removal means for removing noise from a predetermined region of the input image, on the basis of the position and intensity of noise detected by the noise detection means;

arithmetic means for obtaining, for each intensity level of noise, the ratio of an area targeted for noise removal to the predetermined region of the input image, on the basis of the position and intensity of noise detected by the noise detection means; and

image generation means for generating an image indicating the ratio for each intensity level of noise, on the basis of the ratio obtained by the arithmetic means.

15. An image processing apparatus comprising:

noise detection means for performing detection of position and intensity of noise, on an input image;

noise removal means for removing noise from a predetermined region of the input image, on the basis of the position and intensity of noise detected by the noise detection means;

arithmetic means for obtaining, for each intensity level of noise, the ratio of an area targeted for noise removal to the predetermined region of the input image, on the basis of the position and intensity of noise detected by the noise detection means;

statistics calculation means for obtaining, for each intensity level of noise, the statistics on the ratios obtained by the arithmetic means over a predetermined period of time;

image generation means for generating an image indicating the statistics, for each intensity level of noise, on the basis of the statistics obtained by the statistics calculation means; and

image composition means for superimposing the image generated by the image generation means on the image before being subjected to noise removal by the noise removal means or on the image from which noise has been removed, to generate a composite image for display.

16. An image processing apparatus comprising:

noise detection means for performing detection of position

and intensity of noise, on an input image;

noise removal means for removing noise from the input image, on the basis of the position and intensity of noise detected by the noise detection means;

image generation means for generating an image indicating pixels included in an area of the input image targeted for noise removal, using a predetermined color according to the intensity of noise, on the basis of the position and intensity of noise detected by the noise detection means; and

image composition means for superimposing the image generated by the image generation means on the image before being subjected to noise removal by the noise removal means or on the image from which noise has been removed, to generate a composite image for display.

17. An image processing apparatus comprising:

noise detection means for performing noise detection on an input image;

noise removal means for removing noise from the input image on the basis of the result of the noise detection; and

image composition means for receiving the input image and the output image from the noise removal means, and spatially combining a part of the input image with a part of the output image from the noise removal means, to generate a composite image to be output.

18. An image processing apparatus as defined in Claim 16, wherein the intensity of the noise detected by the noise detection means is only one, and the color of the image generated by the image generation means is only one.

19. An image processing apparatus as defined in Claim 17, wherein the image composition means cuts partial images of the same region from the input image and the output image from the noise removal means, respectively, and generates an image in which the partial images are arranged vertically or horizontally.

20. An image processing apparatus as defined in any of Claims 12 to 17 further comprising:

    image decoding means for decoding an image code sequence to generate a decoded image;

    said noise detection means receiving the image code sequence, and performing noise detection using information included in the image code sequence; and

    said noise removal means removing noise from the decoded image outputted from the image decoding means, on the basis of the result of the noise detection.

21. An image processing apparatus as defined in any of Claims 12 to 17, wherein said noise is one of blocking artifact and ringing

artifact.

22.   An image processing apparatus as defined in any of Claims 12
to 17, wherein the predetermined region to be subjected to noise
removal by the noise removal means is an assembly of pixels in
the vicinity of a boundary of each block.

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